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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/522,279	01/24/2005	Koji Fujita	KIT-383-US (10500694)	8806
24972 7590 02/21/2007 FULBRIGHT & JAWORSKI, LLP 666 FIFTH AVE NEW YORK, NY 10103-3198			EXAMINER BEX, PATRICIA K	
			ART UNIT 1743	PAPER NUMBER
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		02/21/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/522,279

Applicant(s)

FUJITA, KOJI

Examiner

P. Kathryn Bex

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 2/09/07.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) 1-3, 6-9 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 4, 5, 10 and 11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 10/28/05; 10/06/2006.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

2. In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claims 1-2, 7-8 drawn to a vessel for biochemical use.

Group II, claims 4-5, 10-11, drawn to a vessel for biochemical use.

Group III, claims 3 and 6, drawn to a biochemical vessel.

Group IV, claim 9, drawn to a biochemical vessel.

3. The inventions listed as Groups I to IV do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, there is a lack of unity *a posteriori*, since the group of technical features common to the claims, i.e., "a vessel comprising a substrate (glass or resin) having ultraviolet transparency and plurality of recesses formed in (or cylindrical members attached to) the substrate" are well known and do not define a contribution over the prior art, see Mathus et al., (U.S. Patent no. 5,858,309, column 2, lines 4-17 and column 5, line 1 to column 6, line 51.)

4. A telephone call was made to James Crawford on February 7, 2007, which resulted in a provisional election on February 9, 2007 without traverse to prosecute the invention of Group II, claims 4-5 and 10-11 confirmation of this

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election must be made by applicant in replying to this Office action. Claims 1-3, 6-9 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Priority

5. Applicant is advised of possible benefits under 35 U.S.C. 119(a)-(d), wherein an application for patent filed in the United States may be entitled to the benefit of the filing date of a prior application filed in a foreign country.

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Specification

6. The disclosure is objected to because of the following informalities: the "Brief Description of the Drawings" section does not include description of both Fig. 9A and Fig. 9B as illustrated in the Drawings.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claim 5 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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9. Claim 5 recites the limitation "wherein said plate-like body and said glass substrate define a concave portion to form a hollow portion". This language is confusing and indefinite since it is not clear how the concave portion is different from the hollow portion. The specification and drawings define the concave portion (32) and hollow portion (33) as essentially the same element (see Fig. 5A-B; page 14 of the specification).

10. The term "low-melting point" in claim 11 is a relative term which renders the claim indefinite. The term "low-melting point" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. It is not clear what Applicant considers a "low-melting point" glass. Furthermore, no examples of an adhesive comprising a low-melting point glass are provided in the specification.

Claim Rejections - 35 USC § 102

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this

Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an

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application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

12. Claim 4 is rejected under 35 U.S.C. 102(b) as being anticipated by Pham et al., (US Patent no. 6,171,780).

The multi-well platform of Pham et al., can be made of one or more pieces. Specifically, the plate-like body 10 (which includes wells 14) can be one discrete piece, and the substrate 11 can be a second discrete piece, which are combined to form a multi-well platform. Moreover, Pham et al., disclose plate-like body and substrate can be made of the same material (column 15, lines 44-55). For example, both the plate-like body and substrate can be made of a glass, or quartz. Furthermore, Pham et al., teach the plate-like body and bottom can be attached to each other by sealing means, such as an adhesives, sonic welding, heat welding, melting, etc. One example of such an adhesive in Pham et al., is inorganic silicon, column 38, line 56.

Claim Rejections - 35 USC § 103

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

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1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

15. Claims 5 and 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pham et al., (US Patent no. 6,171,780) in view of Yershov et al., (US Patent No. 6,692,972).

Pham et al., disclose the biochemical vessel substantially as claimed and described above, including the use of an inorganic adhesive. However, Pham et al., fail to specifically disclose the inorganic adhesive comprising a low-melting-point glass or metal solder.

Yershov et al., teach a device for producing microscopic arrays of molecules. The device of Yershov et al., includes a substrate having a plurality of wells (e.g., pins 210 nested in a support sleeves 221) connected to a base plate 209. As depicted in FIG. 2B, a low temperature melting substrate such as solder 223 is used to connect the pin 210 to the base plate in a thermally reversible manner (column 7, line 61 to column 8, lines 11). This is advantageous since the use of solder allows for minor adjustments of the device being attached prior to final solidification (column 8, lines 3-11).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used a low temperature melting adhesive such as solder, as taught by Yershov et al., for attaching the plate-like

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body and substrate together as disclosed in Pham et al., in order to allow for minor adjustments of prior to final solidification (column 8, lines 3-11).

Conclusion

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure are as follows: Hafeman et al., (US Patent no. 5,487,872), which teach polymeric cylinders fused to a quartz substrate via silicon rubber; Nawracala et al., (US Patent no. 6,018,388) teach a microtiter plate comprising a light transparent bottom plate attached to a multiwell cavity plate via glue or cement.; Manns et al., (US Patent nos. 5,457,527 and 5,319,436) teach a microtiter plate comprising a light transparent bottom plate attached to a polymeric multiwell cavity plate via adhesives; and Mathus et al. (US Patent no. 5,858,309) which teach providing a polymeric upper plate having a plurality of wells adhered to UV permeable substrate.

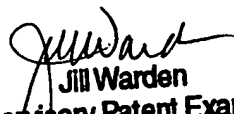
17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to P. Kathryn Bex whose telephone number is 571-272-2374. The examiner can normally be reached on Monday thru Thursday, 9 AM to 6 PM, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill Warden can be reached on 571-272-1267. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

PKB



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